REMARKS

Initially, Applicant would like to thank the Examiner for acknowledging consideration of each of the documents cited in the Information Disclosure Statement filed on June 18, 2004. Applicant would also like to thank the Examiner for acknowledging Applicant's claim for foreign priority under 35 U.S.C. §119, as well as receipt of a certified copy of the priority document upon which the claim for foreign priority is based.

In the outstanding Official Action, the title was objected-to as non-descriptive of the invention to which the claims are directed. Claims 1 and 3 were rejected under 35 U.S.C. §103(a) over FURUSAWA (U.S. Patent No. 6,371,908) in view of OZAWA (U.S. Patent No. 6,080,104). Claim 2 was rejected under 35 U.S.C. §103(a) over FURUSAWA in view of OZAWA, and further in view of HIGUCHI (U.S. Patent No. 6,734,894). Claims 4-5 were rejected under 35 U.S.C. §103(a) over FURUSAWA in view of OZAWA.

By the present Amendment, the title of the application has been replaced with the replacement title: LIGHT-EMITTING DIAGNOSIS SUPPORT DEVICE.

Reconsideration and withdrawal of the objection to the title is requested in view of the replacement title as presented herein. If the replacement title is still found to be non-descriptive of the invention to which the claims are directed, the Examiner is requested to suggest a new title which he considers to be descriptive of the invention to which the claims are directed.

Upon entry of the present Amendment, claim 2 will have been cancelled without any prejudice to or disclaimer of the subject matter recited therein. Claim 1 will have

been amended to incorporate substantially all of the features previously recited in claim 2. Claim 1 will also have been amended to recite that the intensities of the excitation light and the reference light are controlled "without a variable diaphragm and without a light stop by changing the voltage applied to said light source". The claims will also have been amended to more clearly recite the combinations of features contained therein.

With respect to the features of previous claim 1, the Official Action acknowledges that FURUSAWA does not disclose a "calculating section that calculates a first intensity coefficient based on the maximum brightness level of the fluorescent image data according to a first operational expression" or a "calculating section... that calculates a second intensity coefficient corresponding to the maximum brightness level of the reference image data according to a second operational expression". The Official Action also acknowledges that FURUSAWA does not disclose an "intensity measuring section that extracts the maximum brightness level from the brightness levels of all the pixels in the fluorescent image data and extracts the maximum brightness level from the brightness levels of all the pixels in the reference image data whenever the image signal acquiring section acquires a set of the reference image data and the fluorescent image data". The Official Action further acknowledges that FURUSAWA does not disclose that the "first and second operational expressions are determined such that the intensities of said excitation light and said reference light increase as the maximum brightness levels of said fluorescent image data and said reference image data decrease".

Accordingly, the Official Action acknowledges that FURUSAWA would require

extensive modification in order to obtain the features recited in independent claim 1. The Official Action asserts that it would be obvious to modify the teachings of FURUSAWA with the teachings of OZAWA to obtain the above-noted features recited in claim 1 which are acknowledged to be absent from the teachings of FURUSAWA. However, the Official Action relies on features in OZAWA of controlling "the size of the aperture 67 in accordance with a signal output from the peak value detecting circuit 63... in order to maintain uniform average or peak brightness of the observed image" (emphasis added).

The Official Action also acknowledges, with respect to the features previously recited in claim 2, that FURUSAWA in view of OZAWA does not disclose "that the light controller controls the intensities of said excitation light and said reference light by changing the voltage applied to said light source". Accordingly, the Official Action acknowledges that FURUSAWA in view of OZAWA would require additional modifications in order to obtain the additional features previously recited in dependent claim 2. The Official Action asserts that it would be obvious to further modify the combined teachings of FURUSAWA and OZAWA with the teachings of HIGUCHI to obtain the above-noted features recited in claim 2 which are acknowledged to be absent from the teachings of FURUSAWA in view of OZAWA. However, the Official Action relies on features in HIGUCHI of "controlling means may variably control the lamp voltage " as an "obvious alternative" to aperture control (presumably as in OZAWA).

Applicant submits that there is no proper motivation to modify FURUSAWA in the extensive manner necessary to obtain the features recited in amended claim 1. In this

regard, the Official Action must show that there is a teaching, motivation or suggestion of a motivation to combine references relied on as evidence of obviousness. In re Lee, 277 F.3d 1338, 1342, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002). Further, the Examiner must point to some concrete evidence in the record in support of such findings. In re Zurko, 258 F.3rd 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggests the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

There is no proper basis for any assertion that it would be obvious to modify FURUSAWA with the extensive modifications necessary to obtain the features recited in amended claim 1. In this regard, the cited motivation to modify FURUSAWA with the teachings of OZAWA is based on the disclosure of OZAWA for adjusting the size of an aperture. Further, the mere fact that peak values can be extracted and calculated in OZAWA is not motivation to actually use them "whenever" an image data acquiring section acquires a set of the reference image data and the fluorescent image data as recited in claim 1. Rather, OZAWA explicitly provides an alternative to extracting and calculating peak values by detecting an average value using the average value detecting circuit 64. Accordingly, the only motivation to modify FURUSAWA with the selectively edited teachings of OZAWA is the improper motivation to obtain Applicant's claimed combination in hindsight.

Further, there is no proper basis for any assertion that it would be obvious to modify the combined teachings of FURUSAWA and OZAWA with the teachings of

HIGUCHI to obtain the features recited in amended claim 1. In this regard, the cited motivation to modify FURUSAWA and OZAWA with the teachings of HIGUCHI is based on the disclosure of HIGUCHI for adjusting outgoing light quantity from a light source immediately before light shielding. Further, the mere fact that voltage can be varied is not itself motivation to actually vary a voltage applied to a light source in FURUSAWA, particularly where HIGUCHI explicitly provides an alternative to varying a voltage by controlling an aperture of a light quantity restrictor. Moreover, the cited motivation to control a lamp voltage rather than install an aperture in FURUSAWA, i.e., because controlling a lamp voltage "requires fewer mechanical parts", is speculative and not based on a teaching in any document applied in the Official Action. In this regard, the choice provided by HIGUCHI demonstrates the feasibility of voltage control or aperture control to regulate light in HIGUCHI. Accordingly, the only motivation to modify FURUSAWA and OZAWA with the teachings of HIGUCHI in the manner asserted in the Official Action is the improper motivation to obtain Applicant's claimed combination in hindsight.

In any case, claim 1 has been amended to include substantially all of the features recited in previous claim 2, and to recite "said light controller controlling the intensities of said excitation light and said reference light without a variable diaphragm and without a light stop by changing the voltage applied to said light source". These features of the amended claim 1 are supported by the absence of any reference in the present specification to any "variable diaphragm" or any "light stop" and by the references in the specification to changing the voltage applied to a light source.

Applicants submit that the above-noted features of amended claim 1 are not

disclosed, suggested or rendered obvious by the combination of FURUSAWA in view of OZAWA, and further in view of HIGUCHI. In other words, Applicant submits that the above-noted features would not result from the combination of FURUSAWA and OZAWA and further in view of HIGUCHI. The Official Action asserts that HIGUCHI discloses such a feature at col. 2, lines 54-59, with the teaching that a "light quantity controlling means may variably control the lamp voltage or the aperture of a light quantity restrictor". However, the voltage control in HIGUCHI is only disclosed to be controlled with respect to a single type of light, and not with respect to both "excitation light" and "reference light".

HIGUCHI does not so much as use the term "excitation light" or any similar term in the specification. Moreover, HIGUCHI explicitly discloses controlling voltage in combination with a "diaphragm control circuit 39" and a "diaphragm 35" to control light quantity (see col. 7, lines 32-50).

By way of explanation as to the differences between amended claim 1 and even the combination of FURUSAWA, OZAWA and HIGUCHI, Applicant notes that intensities of both excitation light and reference light can be controlled in claim 1 by changing voltages applied to a light source. Without using a variable diaphragm or light stop, divergent angles and spectrums of both excitation light and reference light can be fixed. When the diameters of the excitation light and reference light are adjusted so that the divergent angles of each type of light are in accordance with each other and so that spectrums of both lights are in accordance with respective standards, the adjusted conditions of divergent angles and spectrums can be fixed, regardless of the intensity of either type of light as controlled by a light controller.

In contrast, FURUSAWA does not disclose a mechanism for changing intensity of light. Therefore, FURUSAWA does not disclose that both excitation light and reference light are respectively varied by controlling the voltages applied to a light source to generate excitation light and reference light. Further, the modification of the teachings of FURUSAWA with the isolated selected teaching of OZAWA and HIGUCHI to increase voltage applied to a light source for a single type of light would not result in the above-noted features recited in claim 1. Nor would modification of the teachings of FURUSAWA with the isolated selected teaching of OZAWA and HIGUCHI enable the above-noted benefits which can be achieved with a configuration recited in amended claim 1. In other words, variably changing the voltage applied to a light source for each of reference light and excitation light, without a variable diaphragm or a light stop, would enable both divergent angles and spectrums to be fixed for each of the reference light and excitation light. However, the modification of FURUSAWA with the teachings of OZAWA and HIGUCHI would not result in these benefits which can be obtained by the combination recited in amended claim 1. Rather, HIGUCHI discloses the possibility of controlling voltage of a single type of light, and therefore modification of FURUSAWA with such teachings would not result in the combination recited in amended claim 1.

Accordingly, Applicant respectfully submits that amended claim 1 is allowable for at least each and all of the reasons set forth above. Applicant further submits that claims 3-5 are each allowable at least for depending, directly or indirectly, from an allowable independent claim as well as for additional reasons related to their own recitations.

SUMMARY AND CONCLUSION

The present application is believed to be in condition for allowance. Applicant has amended the claims and has explained how the combinations of features recited in the amending claims are not disclosed, suggested or rendered obvious by the documents applied in the Official Action. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejection, and an indication of the allowability of the claim now pending.

The amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Examiner have any questions, please contact the undersigned at the telephone number provided below.

Respectfully submitted,
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